

## Resurrection of *Bactrocera* Macquart and Clarification of the Type-Species, *longicornis* Macquart (Diptera: Tephritidae).

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The status of the taxon *Bactrocera* Macquart, and the type-species *longicornis* Macquart, have been confused in the previous literature. Both of these were first proposed as new by Guérin-Méneville (*in* Duperrey, L. I., ed., Voyage autour du monde sur la corvette de sa majesté La Coquille. Zoologie Atlas Insects 2(2):300), but this section of his Coquille report did not appear until 1838 (ref. Couson, et al., in Stone, et al. 1965:1252) and his names were "scooped" by Macquart in 1835 who obviously had access to a copy of Guérin-Méneville's manuscript (ref. Sherborn and Woodward 1906:336). So both *Bactrocera* and its type-species *longicornis* are to be attributed to Macquart (1835, Hist. Nat. Ins. Dipt. 2:452, 453, pl. 19, fig. 13); with the type locality "du fort Praslin", Gagi Island, British Solomons. Guérin-Méneville in the subsequent description gave the type locality as "Port Jackson."

From the sketchy original description this could only be placed as a *Dacini* (*Dacus* Fabricius, as in present use) with banded wings. Doleschall (1858:121) used *Bactrocera* as a genus and treated three species which in recent literature have been placed as *Dacus* (*Strumeta*) Walker (1857). Bezzi (1913:92) treated *Bactrocera* as a genus, with *Strumeta* Walker as a synonym. He restricted the concept to include only those species with banded wings (*sensu* *Dacus umbrosus* Fabricius) and erected a new genus, *Chaetodacus*, for those species with non banded wings. Bezzi followed this in his subsequent papers (1916:100, 101; 1919:416; and 1928:100) and it was used this way by Hendel (1914:74). Malloch (1931:258) stated "Bezzi has used the subgeneric (Bezzi actually used it in a generic sense) name *Bactrocera* Guérin for the species in which there is at least one dark fascia across the disc of the wing, *Dacus umbrosus* Fabricius being the type of the group. . . . It appears worth noting that I have examined specimens of *D. umbrosus* in which the fasciae on the wings are so faint that they are barely discernible, the specimens thus falling into the same group as *D. cucurbitae* Coquillett. This variation is an added incentive to disregard the claim of *Bactrocera* to generic or even subgeneric rank."

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Perkins (1937:53) treated *Bactrocera* as a "doubtful genus with one doubtful species," he said, "I can find no justification for sinking *Strumeta* as a synonym of *Bactrocera*." Perkins (*loc. cit.*) resurrected *Strumeta* Walker, placing *Chaetodacus* Bezzi (1913:89) as a synonym. In his subsequent papers (1938, 1939, and 1949; the latter with A.W.S. May) Perkins treated *Strumeta* as a genus with *Bactrocera* ignored as a *nomen dubium*.

Malloch (1939a:410, 412) continued to use *Bactrocera*, as a subgenus of *Dacus*, for *umbrosus* Fabricius and also used *Chaetodacus* as a subgenus. Hering (1938, 1939, 1941a, 1941b, 1952a, 1952b, 1953 and 1956) followed Perkins in using *Strumeta* as a genus but he (1939:165, 1952a:264) treated *Bactrocera* as a subgenus of *Strumeta*, for *segyi* Hering (banded winged species) and for *umbrosus*. May (1952a, 1952b, 1953a, 1953b, 1953c, 1954, 1956, 1957, 1958, 1960, 1962, 1963a, 1963b, 1965, and 1967) also used *Strumeta* as a genus as did Drew in his earlier papers (1968, 1969), and also Shiraki (1968).

*Strumeta* has been used consistently as a subgenus of *Dacus* by Hardy (1951, 1954 (with M.S. Adachi), 1955, 1956 (with M.S. Adachi), 1959, 1968, 1969a, 1969b, 1970, 1971, 1973 and 1974) with *Bactrocera* ignored as an unplaced taxon. This interpretation has been followed by Drew in his intensive studies of the Dacini of the South Pacific area (1971, 1972a, 1972b, and 1974) and also by Kapoor (1970).

I have studied the type of *Bactrocera longicornis* Macquart in the Museum of Natural History, Paris and it is congeneric with *Strumeta* Walker, the species is the same as *Dacus (Strumeta) denigratus* Drew (1971:61). The latter is a new synonym based upon my study of the type and comparison of my descriptive note and color photographs with the description and figure of *denigratus*. Drew's description and figure will readily differentiate *longicornis* from other banded winged *Dacus*. The type series of *denigratus* was from New Ireland the Lihir Island, Bismarck Islands and from Bougainville, Solomon Islands.

Under the provisions of Article 23b and Article 79b of the Rules of Zoological Nomenclature as revised and amended at the XVII International Congress of Zoology, Monaco (1972) (ref. Bull. Zool. Nomencl. 29:185-186 (1972; 31:79, 87-89 (1974) ), *Strumeta* will fall as a junior synonym of *Bactrocera*. The former has been used in all of the revisional or monographic studies of the Dacini, except for Malloch (1931 and 1939b) and Shiraki (1933), since Bezzi (1913), and a large proportion of the approximately 200 species of this subgenus have been described as *Strumeta*. However, even though *Bactrocera* has been confused in much of the literature, the name was used *sensu Strumeta* (in part) as late as 1952, and the 50 year non-usage provision of the Rules would nullify the use of *Strumeta*.

Strong consideration had been given, previous to the revision of the Rules, to proposing to the International Commission to suppress the name *Bactrocera* Macquart in order to preserve *Strumeta* Walker. The former to be treated as a senior synonym of the latter on the basis that *Bactrocera* has been confused in the literature, its taxonomic position could not previously be determined and the taxon has been treated as a *nomen dubium*. Also because *Strumeta* has been used consistently in all the literature since 1939 except for Hering (1952a). However, the status of *Bactrocera* is now clear, and since the systematists now working with Tephritidae are in agreement that this taxon

should be treated as a subgenus of *Dacus*, it should not cause any serious inconvenience to the economic workers if *Bactrocera* replaces *Strumeta* in the taxonomic literature.

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